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MOTIVATIONAL STRUCTURE AND PERCEIVED ROLE DISPARITIES.

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THE RELATIONSHIP BETWEEN THE CLASSES OF COGNITIVE PHENOMENA WAS INVESTIGATED, I.E., THE MOTIVATIONAL STRUCTURE AND THE DEGREE OF PERCEIVED ROLE DISPARITY OF TEACHERS. ONE ELEMENT OF MOTIVATION, CALLED "ORIENTATION FOR CHANGE," WAS RELATED TO DIFFERENT TYPES OF ROLE DISPARITY, INCLUDING "OPTIMISM" OR THE EXTENT IN WHICH THE NORMS (WANTS OR DESIRES) AND EXPECTATIONS OF AN INDIVIDUAL IN A GIVEN SOCIAL SITUATION ARE CONGRUENT. IT WAS THE VIEW THAT MOTIVATIONAL THEORY AND COGNITIVE THEORY ARE MUTUALLY INCLUSIVE AND THAT NEEDS AND GOALS OF TEACHERS COULD INFLUENCE SOCIAL COGNIZING. COGNITIVE TEACHER ROLE DISPARITY WAS ANALYZED BY ASKING 98 TEACHERS IN KANSAS CITY WHAT THEIR OWN AND ATTRIBUTED COGNITIONS WERE FOR BEHAVIORS OF THEIR OWN POSITION. ATTRIBUTED COGNITIONS APPLIED TO THE GENERAL PUBLIC, SCHOOL OFFICIALS, AND OTHER TEACHERS. MOTIVATIONAL ORIENTATION WAS ALSO DETERMINED FROM A RATED LIST OF IMPORTANT ASPECTS OF TEACHING, FINDINGS FROM WHICH APPEARED TO INDICATE WHY INDIVIDUAL SUBJECTS HAD CHOSEN TEACHING AS AN OCCUPATIONAL CAREER. SOME SUPPORT WAS FOUND AFTER CAREFUL ANALYSIS OF THE COLLECTED DATA THAT "ORIENTATION FOR CHANGE" WAS RELATED TO THE EXTENT OF PERCEIVED ROLE DISPARITY. HOWEVER, LITTLE COULD BE FOUND RELATING THE "OPTIMISM" OF THE SUBJECTS TO THIS DISPARITY. GREATER DISPARITY WAS FOUND ACCRUING TO EXPECTATIONS THAN TO POSITIVE NORMS AND TO ATTRIBUTED COGNITIONS OF THE GENERAL PUBLIC THAN TO GROUPS WITH WHICH THE SUBJECTS WERE MORE FAMILIAR. THIS REPORT WAS PREPARED AS A THESIS AND SUPPLEMENTAL ACTIVITY ON COOPERATIVE RESEARCH PROJECT NO. 371, ENTITLED "ROLE OF THE TEACHER AND OCCUPATIONAL CHOICE." (JH)

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MOTIVATIONAL STRUCTURE AND PERCEIVED ROLE DISPARITIES

A Thesis

Presented to

the Faculty of the Graduate School

University of Missouri

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

by

William S. Bennett, Jr.

January 1962

Dr. Bruce J. Biddle, Thesis Supervisor

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Introduction

This thesis investigates the relationship between two classes of cognitive phenomena. One of these classes corresponds to the "motivational structures" of individuals; the second is the degree of disparity in role prescriptions that is perceived by individuals as members of a clearly defined position. Specifically, an hypothesis is stated relating one dimension of "motivational structure" to the degree of perceived role disparity. Several resulting predictions were proposed for, and tested on, previously collected data from Kansas City public school teachers. (Biddle, 1961, b)

In addition, the relation between several different types of role disparities have been investigated, including what has recently been called "optimism" (see Hays, Bennett, Miller, and Biddle, 1961). Optimism is defined as the extent to which one's own norms and expectations for some social situation are congruent. That is, to what extent is what one <u>expects</u> to happen in some situation isomorphic with what one <u>wants</u> to happen in the same situation.

The theoretical understanding of role disparities has implications far beyond the bounds of role theory. The theory section here should give some small indication of the direct relationship of role disparities to cognitive theory in general, and in turn, the importance of a systematic cognitive theory for investigation of role cognitions.

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Motivational theory is also closely intertwined with current cognitive theory, indeed it is the view here that they are mutually inclusive. This thesis is an attempt to bring motivational considerations into role theory; and in this sense is a somewhat unique venture. Actually, this is only accomplished (theoretically) via the bridge of more firmly established cognitive theory.

Theory

Role Theory

Conceptually and terminologically this thesis draws heavily on a framework of role theory, although some of the propositions involve non-role theory variables. Also, the role theory referred to here is only a certain variety of role theory, propounded quite recently by Biddle (1957, 1960, and 1961a, 1961b), Vlaeback (1959), Getzels (1954, 1955), and a very few others. The broad usage and terminological confusion surrounding the word "role" itself is notorious.

This recent development in role theory has attempted to bring together the best of several older conceptual systems, with elaboration and extended coverage. Most of the definitions used in this thesis are presented in content in a series of unpublished papers and technical reports by Biddle (1957, 1961a, b).

However, to understand this paper one need only be aware that the focal concepts of role theory are: 1) position and 2) cognitions

held for occupants of the position as well as cognitions held by occupants of the position themselves. These cognitions, theoretically, can be of many types, but the most important varieties are expectations and norms.

Specifically:

Position: A set of human beings that can be identified on the basis of some common behavior(s) or immutable feature.

Expectation: A cognition maintained by a subject consisting of predictions for behavior(s) of an object person, or perhaps of an entire position.

Norm: A cognition maintained by a subject consisting of an evaluative map about the varieties of possible behaviors for an object person, or position.

The definition of the term cognition, itself, is broad and eclectic. A cognition is generally used as an heuristic concept to indicate explanations for behavior originating within an organized, sentient, and remembering organism. However, as an intervening variable (after MacCorquodale and Meehl, 1948) it must be anchored in "real world" (i.e., observable) events.

Any cognition may refer directly to behavior or may refer to another cognition presumed to be about some behavior. The former types of cognitions are called first order cognitions and the latter second order (or, attributed) cognitions. Comparison of these two

types will be basic to the methodology of this thesis.

Cognitive Consistency

The problem of cognitive consistency has received considerable attention in the recent literature. Some psychologists have taken a rather extreme position, roughly modeled after an older view of Franke: "The unity of a person can be traced in each instance of his life...there is nothing in character that contradicts itself" (Franke, quoted in Zajonc, 1960). For example, invoking a more explicit postulate, Osgood (1960) has recently written that:

> When in the course of human thinking, inconsistent cognitive elements are formed together by linguistic or behavioral assertions stress is produced in proportion to the magnitude of the inconsistency, and this stress produces modifications which -- by changing the nature of the assertion, changing the connotative meaning of the elements, etc. -- tend to reestablish cognitive consistency.

Heider (1946, 1958) concurs in a paper dealing with the concepts of "balance" and the "strain toward symmetry". His concern is specifically with the manner in which relations among persons toward some behavior or institution are cognized by an individual. Heider's actual analysis has been limited to dyadic relations, but the social psychological proposition is clear: asymmetry seen by some social observer in the manner in which actors relate to each other will lead to attempts on the part of the observer to obtain symmetry.

Cartwright and Harary (1956) cast Heider's formulation into

graph theoretical terms and have derived some specific consequences of asymmetry beyond those stated by Heider. They have also refined the concept, with "balance" treated as a matter of degree and assigned a range of 0.0 to 1.0 (Harary, 1959) in an attempt to measure the "structural balance" (perceived consensus, really) in small groups.

Newcomb (1953) has taken Heider's concept of symmetry out of strictly cognitive mode and has applied it to communications among people. The "strain toward symmetry" influences communication between two individuals and acts to bring their attitude toward some behavior "x" into "congruence". In short, Newcomb has hypothesized a positive monotonic relationship between a single individual's perception of asymmetry and the same individual's communicative behavior toward those relevant alters.[1] However, Newcomb does allow that in "extreme situations" the "strain toward symmetry" may have some effect on the selection process: that is, where considerable asymmetry exists the cognising individual may escape the situation by simply avoiding the social sources of the cognitions out of line with his own.

The best known of the consistency theories, as well as that one best supported by research results, is the cognitive dissonance

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[1]The use of "alter" (and "ego") in this thesis will follow the definition of the terms offered by Homans (1950).

hypothesis of Festinger (1957). A cognition is defined by Festinger as a piece of information available to the individual; but no qualifications are placed on the veridicality of this information. Cognitive dissonance is the condition in which two pieces of information held by a single individual are in some way mutually exclusive. Festinger says: "...two cognitions are dissonant with each other if, considering these two cognitions alone, the obverse of one follows from the other" (Festinger, 1957). Festinger has further proposed that "dissonance always gives rise to pressures to reduce dissonance;" also, "the strength of pressure to reduce dissonance is a function of the magnitude of the existing dissonance.

Festinger has briefly outlined three means of reducing dissonance; these are:

1. the changing of a behavioral cognitive element,
2. the changing of an environmental cognitive element, or
3. adding new cognitive elements.

This is the essence of Festinger's theory, and as such it has much in common with the other cognitive consistency theorists discussed above. In general Festinger, Heider, Osgood, Newcomb, Cartwright and Harary all postulate the cognitive inconsistency (conceived by each theorist in a subtly different way) creates a kind of stress, or need disposition, that leads directly to behavior of cognitive redistricting offering some kind of relief. This relief-getting action is variously described by the authors, but it

PRECEDING PAGE MISSING

vast new realm of stimuli (dissonant cognitions) that by their very reduction will be reinforcing (although this term is not explicitly used). Moreover, they attempt to set critical conceptual boundaries to this new category of stimuli so as to clearly delimit the field and, finally, to postulate a precise set of actions that will reduce the "drive-stimulus" in any and all situations. The argument is severed from the connotations and content of learning theory, but the dynamics are the same.

There is, however, another way (systematically) to handle the problem of cognitive inconsistency. This is to treat the cognitive disparity as a response (of a complex sort) that develops out of an historical or genetic pattern of responses. This, for its systematic bias, could be called the Skinnerian approach, although the empirical work of B. F. Skinner is irrelevant to this problem.

One example of this latter approach can be found in Klein (1958), who has proposed "a concept of cognitive control that would center attention upon a person's typical strategies of perceiving, remembering and thinking." Klein has said in criticism (said of older perceptual studies, but nonetheless true of Festinger, et. al.) "they assume that if only a drive is intense enough it can bend any and all cognitive structures to its aim."

"Strategies" is the key concept for Klein, and while it is a word that might not be out of place in one of Festinger's or Newcomb's articles, the stress here is on strategic action, or

proaction, rather than reaction. In interpreting research results Klein notes that:

> ...a rather common notion of drive speaks of it as goal directed behavior which involves, in Tolman's words, a 'readiness to get to and manipulate in consummatory fashion...certain types of objects' (1951, p. 398). Yet the behavior patterns of cognitive *attitudes* seemed by no means committed to a search for particular forms of satisfaction. They had much in common with what Gordon Allport (1935) has called 'instrumental attitudes', since they involved not so much what a person was typically trying to get at (drive satisfaction) as the how, his ways and means of getting there... It seemed best, then to consider the purposiveness in cognitive attitudes in terms best suited to their most obvious accomplishment in behavior, rather than as an expression of drive satisfaction: as ways of contacting reality, whereby one's intentions are coordinated with the properties, relations, and limitations of events and objects. (Klein, 1958)

As referred to above, Klein's own terms for patterns of cognitive responses are "cognitive attitudes" and "cognitive styles". A cognitive attitude is less general than a cognitive style. But the crucial point in relation to the dissonance hypothesis, strain toward symmetry theory, etc., is that Klein's research indicates that certain individuals may actually use (quite consistently) a "flexible cognitive style," one that, to use Festinger's terminology would court dissonance a considerable portion of the time. The question of *why* some individuals admit to greater dissonance than do others when apparently faced with the same immediate environmental inconsistency is not a subject easily approached with the drive-stimulus reduction type of theory where attention is riveted on the stimulus rather than on the response.

Individual Differences

The problem of individual differences has not been of particular interest to the drive stimulus theorists in their attempts to support a global theory about cognitive consistency. Again Festinger, Newcomb, Heider, Cartwright, and to a lesser degree Osgood can be lumped together on this score. Recently, Festinger has become interested in individual differences (Aronson, 1959) and has attempted to develop a scale, or test, which would measure "tolerance for cognitive dissonance."

Following the drive stimulus reduction approach, Festinger chose an objective, standard stimulus (changing college majors in a student's junior year) as representing a unitary amount of cognitive dissonance (like so many hours of water deprivation). The attempts to develop a test for "tolerance" for cognitive dissonance have so far been unsuccessful. Festinger has advanced several reasons for the failure to date, all of which may be contributing factors, but has overlooked the fact that the validating criterion for dissonance may, itself, be faulty. It certainly seems inappropriate to apply this criterion uniformly to all the respondents involved in the study.

Psychologists other than Klein have appeared in general opposition to the drive-stimulus reduction approach to consistency. References have been made to "ambiguity tolerance" (Frenkel-Brunswick, 1949) or "set for change" (Helson, 1948). For these theorists,

cognitions, dissonant or otherwise, do not appear as isolated, undulating atoms, rather they are organized under some general systems. These systems are reflected both in the actual content of the cognitions and in the way the cognitions illustrate the "life style" of the individuals in question. Cognitions, like tastes in food, appear in response patterns that develop out of complex environmental contingencies.

Numerous writers have discussed the interrelationship of "motives" with perception and cognition with an eye to theory (G. Allport, 1955; Frenkel-Brunswick, 1949; Whitehorn, quoted in G. Allport, 1955; Nelson, 1948, and others). However, with the exception of Nelson these discussions have been discursive rather than systematic while Nelson is dealing with perception, not cognition.

A more fully developed view, explicitly relating cognitions to "motivation", has been presented by Miller, Galanter and Pribram (1960) in their discussion of "plan and autoplan". These authors feel that one shortcoming of all cognitive theory to date has been its neglect of the dynamic component of cognitions. They feel that Guthrie's comment about Tolman having "left his rats at the choice point, lost in thought", is particularly apt for almost all cognitive theory. In contrast, they view cognitions as instruments of general plans of the individual in maneuvering his way through a complex (sometimes even treacherous) environment.

Problem

The attempt was made to further substantiate the theory that long range goals or plans can influence cognizing. There is considerable evidence that needs, goals, and the like influence simple laboratory perceptual tasks, including stimulus interpretation (see Solley and Murphey, 1960 or Atkinson, 1958). This thesis attempted to extend empirical support to the area of social cognizing.

Adapting the conceptual framework of contemporary role theory described above, the question was asked: What kinds of motivational structures (or "plan")[2] might be related to tolerance for role disparities? Or, in relation to a large amount of data at hand on public school teachers: What kinds of "reasons for teaching" might make teachers admit to greater differences between their own expectations and/or norms for teacher behavior and those that they attribute to important alter groups (second order cognitions)?

The clues to the answer to this question were not immediately obvious in any of the literature surveyed. Solley and Murphey (1960, p.77) have discussed the tendency of artists and other "creative

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[2]It should be clear by now that the use of the term "motivational structure" in this thesis is a concession to common psychological parlance; the "motives" dealt with here will be assertions by individuals about their futures, their interests, or their goals. To the extent that these statements are a relatively permanent part of the subject's response repertory, i.e., persist over months, years, even a life time, they are conceived of as being part of the subject's cognitive structure, just as are norms or expectations expressed by the individual.

thinkers" to engage in "autistic thinking", considerably at variance with reality as generally interpreted by their immediate associates. To a man who apparently does not lose indefinite contact with his environment (i.e., is not psychotic) autism would seem to involve considerable cognitive inconsistency.

Witkin, et. al., (1965) have described in detail the psychological characteristics related to an individual's ability to perceive correctly despite misleading clues in the environment. The profile of these resistent individuals (i.e., those, it would seem, allowing a certain amount of dissonance in their perceptions) includes creativity on the Rorschach, lack of constrictedness in the Draw-a-Person, and on the basis of extended personal interviews, "a more active attitude toward the environment," including a "concept of an independent self which can act to initiate events in the environment." In general, Witkin's case histories revealed a much more positive attitude toward change on the part of the "analytical" subjects, than was found in the histories of those ss that appeared "field controlled" in the perceptual studies. (p. 313)

Likewise, Else Frenkel-Brunswick (1949), after an extensive study of children and lower class adults, concluded that:

> The overall trend of the data discussed...seems to indicate a certain generality, within [some] individuals concerned, of the approach to reality which we have subsumed under the term intolerance of ambiguity.

Moreover, with the children and adult group Frenkel-Brunswick found

the highly intolerant attitude toward ambiguities in simple perceptual tasks was associated with an "orientation opposing change" in more macroscopic matters (e.g., the political system, etc.).

Thus, it would seem that there is some consensus on the fact that an orientation for change is positively related to tolerance for ambiguity in perceiving. The same might be said for social cognizing, including tolerance for role disparities, admitted by public school teachers. That is, a change-oriented "reason" for teaching may be related to "tolerance" for role disparities.

If such a general life style (or, in Prisbram's language, a metaplan) could be shown to predict the relative amount of role disparities admitted by the person, it was felt that a strong argument, or at least an important qualification, could be posed to those theorists who claim that cognitive dissonance always acts as a drive stimulus. Briefly, the argument presented here is that a role disparity (or any kind of dissonance) may not be strain or tension producing when it is used in a more encompassing life plan of the individual. For example: the desire for social reform, or the attempt to produce a new body of art, may not produce tension if it is imbedded in a broader metaplan. There may be no such thing as a "tolerance for dissonance"; rather, there may be a striving for dissonance of certain types and/or in certain settings.

The identification of "change oriented" vs. "non-change oriented persons" has not previously been reported in the literature.

However, on the basis of the discussion of the authors listed above certain guide lines may be proposed. Change oriented individuals should be individuals who in their "motivational structures" indicate strong intention either (a) to change society, (b) to change others with whom they associate, or (c) to change their own relation to the society. A non-change oriented individual would then be typified by a lack of interest in change or a stress on security and the status quo.

Concomitant with a tendency to structure his environment in terms of change it also seems likely that an individual who is change-oriented would not have a vested interest in the present system, but would be more responsive to information pointing out flaws or weak spots in the system, including role disparities. Indeed, it seemed possible that some change-oriented individuals might "imagine" more disparity than actually exists.

Following from the above discussions, the major hypothesis of this thesis was stated as follows:

> Hypothesis No. 1: The more change-oriented a respondent's motivational structure, the more perceived disparity between expectations and norms held for his position by relevant alters and his own expectations and norms.

From this general hypothesis, predictions were obtained involving specific types of norms or expectations. Three types of cognitions held by public school teachers in Kansas City were studied together

with similar cognitions attributed by teachers to two alter positions ("people in general", and "school officials") as well as to other teachers. The three types of cognitions were expectations, positive norms (what does X like Y to do) and negative norms (what does X dislike Y to do). All three types will be discussed more fully in the following section on methodology.

Nine predictions were stated with applicability to these data:

1.a The more change oriented a respondent's motivational structure (this first clause will be set = X in the remainder of the predictions), the more disparity between expectations attributed to people in general and his own expectations.

1.b X, the more disparity between expectations attributed to school officials and his own expectations.

1.c X, the more disparity between expectations attributed to other teachers and own expectations.

1.d X, the more disparity between the positive norms attributed to people in general and his own positive norms.

1.e X, the more disparity between the positive norms attributed to school officials and his own positive norms.

1.f X, the more disparity between the positive norms attributed to other teachers and own positive norms.

1.g X, the more disparity between the negative norms attributed to people in general and own negative norms.

1.h X, the more disparity between the negative norms attributed to school officials and own negative norms.

1.i X, the more disparity between negative norms attributed to other teachers and own negative norms.

A second hypothesis of this paper proposed that those disparities involved in expectations will be quantitatively smaller than those involving norms. This hypothesis was based upon the assumption

that expectations refer to cognitions of the real world events, while norms refer to "ideal" systems. However, the specific predictions from this hypothesis were so soundly reversed (negative findings) that the hypothesis is put in serious question. These findings will be discussed in the "results" section. As stated before the data analysis, the hypothesis read as follows:

> Hypothesis No. 2: Perceived disparities in expectations will be quantitatively smaller than similar disparities involving norms, assuming of course, that similar behaviors are involved.

Thirdly, this thesis considered the possible distinctions between the different alter positions regarding role cognitions attributed to them. Although it was not crucial to hypothesis No. 1 (because it is assumed that all the alters were important to the teacher respondents), it was recognized that one alter position might be seen as more different from respondents than the other two. Furthermore, it might be of interest to know the relative disparities associated with such a vague reference position as "people in general" as opposed to an authority group ("school officials") or the abstracted "other members" of the respondents own position. These relationships were felt to be of both theoretical and methodological importance to the development of role theory.

With some hesitation (because of lack of empirical precedent) it was proposed that the groups would have the following rank in

regard to the degree of role disparity: a) people in general, b) fellow teachers, and c) school officials. Thus:

> Hypothesis No. 3: The disparities between own and attributed cognitions of teachers for the teacher position will be greater when involving "people in general" than when involving fellow teachers, and similarly, will be greater when involving fellow teachers than when involving school officials.

The criteria used for this ordering came from Rommetveit's discussion (1955) of the potency of norm senders. These criteria were:

1. the relative control of rewards and sanctions for teachers held by the respective alters (norm senders), and,
2. the amount of contact between alter and teacher.

Both criteria predict greater disparities involving people in general than with the other two positions; but they contradict each other on the relationship between school officials and other school teachers. On the basis of contact, the teachers should be more cognitively integrated with their own position, but in the light of control over sanctions it is possible that the individual respondent, as an individual, may adopt norms and expectations more in line with those attributed to power figures than those attributed to his own peers. This hypothesis, therefore, is very much in the form of a question. The first criterion (control of rewards) was chosen as the more important of the two criteria mainly because the resulting predictions

was relatively non-obvious. Confirmation of this prediction could not be explained on any other basis than the theory advance here.

The final area of investigation was actually entered after the other three analyses had been completed and it was obvious that only slight support was forthcoming for the major hypotheses. This later area is the relation of the type of role disparity that has been called optimism to the original motivational variable -- "orientation for change." Optimism is defined as "the relative congruence of one's own norm with the corresponding expectation for the behavior of some social actor." (Hays, et. al., 1961).

This cognitive relationship was not treated in the original hypothesis, yet it would seem to be one of the role disparities about which the greatest pressures might arise for reduction, even though it does not fit Festinger's exact definition of "cognitive dissonance" in that the two cognitions are not logically exclusive. In any case, lack of optimism is obviously a cognitive inconsistency that obtrudes into everyday social life. The question here is: what, if any, relationship does it have to the individual's orientation for change -- an orientation that has been described as a kind of life style, or plan?

To this end the following hypothesis was proposed (modeled after Hypothesis No. 1):

> Hypothesis No. 4: The more change oriented a respondent's motivational structure, the less optimism will be associated with the role cognitions for his own position.

Although the hypothesis was essentially the same as hypothesis No. 1, the operationalization of "change-oriented" was not exactly the same. In fact, a more minute examination of the motivational data at hand was made in an attempt to obtain better results than were gotten in the test of hypothesis No. 1. These changes will be more fully discussed in the next section. However, predictions 1.a to 1.i were tested with a single measure of "change orientation", while the hypothesis No. 4 was tested against each of the series of motivational items (Appendix B) that originally were lumped together. The lumped measure of "change orientation" was also used, though, so as to have an exact basis for comparing the results generated by each of the two hypotheses.

Methodology and Data Analysis

The data with which the above hypotheses were tested had already been collected when the hypotheses were formed. They were collected as part of a large study of the role of the public school teacher (see Biddle, 1961, a). The subjects (Ss) were (as far as this thesis is concerned) 98 teachers drawn as a random sample of public school teachers in the Greater Kansas City area. For various reasons the N for any specific test discussed below was considerably less than 98. The major loss of sample size came from the fact that four different lists of cognitions were split among the whole sample; and only three of these lists had sufficient N to make statistical

analysis possible. These three content lists which were used for independent statistical tests will hereafter be referred to as Form A, Form B, and Form C (see appendix A).

Among many other items (the questionnaire took about three hours to administer) each S was asked to read the list (either Form A, Form B or Form C) of ten hypothetical teacher behaviors in specific school settings. Then the Ss were asked to rate each behavior from the following point of view

Page 1: What do you expect of teachers?

Page 2: What do people in general expect of teachers?

Page 3: What do teachers expect of other teachers?

Page 4: What do school officials expect of teachers?

Page 5: What do you most like and least like teachers to do? (two scales)

Page 6: What do people in general most like and least like teachers to do? (two scales)

Page 7: What do school officials most like and least like teachers to do?

Page 8: What do teachers most like and least like other teachers to do? (two scales)

The rating scale for each item (repeated for each "point of view") is best illustrated by the following example (Form A, item 9, page 1):

Disciplining pupils in school
I expect that in the public school the teacher would do:

A great deal of disciplining	5
A lot of	4
A moderate amount of	3
A slight amount of	2
Little or no	1

In accordance with the nine predictions (1.a to 1.i) the own cognitions of each S were compared with the similar cognitions attributed to each of the three "others." Since there were three basic types of cognitions (positive norms, negative norms, and expectations) and three different comparison groups, this analysis yielded nine different lists of disparity scores, each S being included once in each list. In any one list the S was represented by a mean disparity score from all ten responses in that category.

The lists distributed themselves (in a quite skewed fashion) and were converted into ranks. "Optimism" was later measured in a similar fashion with page #1 being compared against page #5.

Orientation for Change

The measure of change-oriented "motivational structure" involved use of a different section of the same questionnaire. This section included a rating list of fifteen possible "reasons as to what was important" for the Ss as teachers. Ten of the items from the list seemed to lend themselves to making up a change-oriented dimension. Five items appeared to share a non-change orientation toward the field of teaching, while the other five items appeared to reflect a pro-change orientation.

These ten items are items a, b, d, e, f, i, j, k, m, and o from Appendix B. However, in order to give more weight to these items than the experimenter's whimsy an item analysis was run on the ten items. A version of Kendall's Tau for data with a large number of ties was used. The results of this analysis are presented in Figure 1. Only those cells with asterisks represent correlations in the non-predicted direction, these were the exceptions to the distributional prediction made on the basis of a common bi-polar factor, i.e., pro-change (a, d, m, o) vs. non-change (f, i, j, k) orientations.

	a	d	f	i	j	k	m	o
a	X	.123	.023	.019	.008	.040	.029*	.157
d		X	-.023	.039	.112*	-.167	.322	.304
f			X	.034*	.228	.341	-.059	-.017
i				X	.081	.229	.055	.060
j					X	.400	-.035	.032
k						X	-.039	-.028
m							X	.113
o								X

Fig. 1. Intercorrelations of Motion Items.

This analysis revealed mainly low correlations, but only three reversals of direction in all the intercorrelations for eight of the items. Thus, the distribution of intercorrelations was fairly well predicted on the basis of the single factor. On the basis of

ambiguous distributions of their inter-item correlations, items b and o were discarded.

In short, items a, d, f, i, j, k, m, and o were eventually combined to yield a single change orientation score for each Jr. Items a, d, m, and o are pre-change items; the others are non-change.

Each item was rated by the Jr from one to four:

1. "necessary"
2. "very important"
3. "fairly important"
4. "not too important"

Thus, it was possible to give any Jr a single score by summing his responses to the pre-change items and then subtracting the corresponding sum of his non-change item responses. The mean of the resulting distribution was 0.0 and the range was from +6.0 to -6.0. Since the mean of the distribution was -0.4, all those Jp scoring -1.0 or below were designated non-change Jp, while all those scoring 0.0 or above were designated pro-change in orientation. These were the two groups used for all comparisons under hypothesis No. 1. These two groups are later referred to as the high motive (Hi) and low motive (Lo) groups.

Statistical Tests

Since there were thirty teacher behavior items, and nine different types of cognitive comparisons, this yielded in all, 270

different statistical tests of hypothesis No. 1 itself. The Mann-Whitney n_g statistic for ranked distributions with a large number of ties was used to evaluate each comparison. However, the findings were so consistently inconclusive with the n_g that a sign test for mean differences was used to illustrate a trend in the data that did support the hypothesis. (See "Results" for elaboration.)

For the relation of "optimism" to "orientation for change" a slightly different method of analysis was used. Here, each of the eight motivational items that previously had been combined to yield one change orientation score were treated separately. For example, motive item "a" was divided into a low group of $\frac{1}{2}$ and a high group of $\frac{1}{2}$, and then the low group compared against the high group on each of the relevant teacher behaviors. This process was repeated with each of the eight motive items. A ninth set of comparisons were made using the amalgamated change score. The predictions were, of course, that:

a) on the prechange items, the high scorers would show greater "optimism" on each of the teacher behaviors, and

b) on the non-change items, the low scorers would show greater "optimism" on each of the behaviors.

With these tests only Forms A and B were used. The deletion of Form C was made because of the prior knowledge of the results in testing hypothesis No. 1 where the low N of Form C (ng. 16) so

lowered the power of the statistical test for any single behavior so to make the effort appear to be a waste of time. The statistical analysis for hypothesis No. 4 was done by hand (whereas the Burroughs Datatron computer was used with all other z_g tests mentioned in this paper). It simply did not appear worthwhile to run off 80 more tests of significance with prior knowledge of very low power. Furthermore, the results with Form A and B were not as encouraging as had been hoped.

Hypotheses No. 2 and No. 3 involved only the disparity scores. Both hypotheses were tested by comparing two distributions of ranked disparities against each other. With hypothesis No. 2 the expectational disparities involving P-N were compared with the corresponding norm disparities; similarly, the expectational disparities involving P-O and P-F were compared with their respective norm disparities.

Hypothesis No. 3 was similarly tested by comparing, first the expectational disparities involving P-N, P-O, and P-F among themselves, and secondly, repeating the process with the norm disparities involving the same three alter positions. That is, on one hand the yields of pages 2, 3, and 4 (see above discussion of behavior items) were compared, while on the other, the yields of pages 6, 7, and 8 were also compared. By a "yield" of a page is meant the comparisons of all cognitions from that page against the corresponding "own" cognitions. Thus the tests of hypothesis No. 3 are comparisons

of relative discretion distributions. Again, the Mann-Whitney s_U was the standard statistic, although the sign test for mean differences was used as a supplement.

The use of non-parametric statistics was necessary because the data did not justify the assumption of an interval scale. Furthermore, the presence of a large number of ties, and a narrow range of scores made the Mann-Whitney s_U the most appropriate test (see Siegel, 1956, or Biddle, 1961, e, xvi. C).

Results

Hi vs. Lo Natives

Expectations. As has been hinted at in the previous section, the Mann Whitney s_U's comparing the Hi vs. Lo native people on 270 different types of role disparities were consistently inclusive. Out of all 270 tests, only six s_U's were significant beyond the 5% level (two tail test), a total finding that is itself below chance level. At least 13 s_U's significant at $p < .05$ could be expected in a normal distribution of 270 s_U results. Even if all of those tests involving Form C are discounted due to low N's, the total number of s_U's is still non-supportive of either hypothesis No. 1 or any of the nine predictions (1.a to 1.i) derived from it.

A table of the mean differences obtained in each of these 270 tests is found in Table 1 with the few significant results marked with asterisks. A plus sign in all cases indicates that

the direction of the mean difference is supportive of the hypothesis. However, it is apparent in viewing this table that there are certain trends in the directions of these mean differences that are supportive of the hypothesis. The sign test for mean differences was applied to these trends with the following results.

Table 1

Mean Disparity Differences: Own vs. Alter

	Expectations			Positive Norms		
Item	P-O	S-O	S-T	P-O	S-O	S-T
1	+.083	-.078	+.117	+.283	+.250	-.283
2	+.100	+.136	-.033	+.166	-.012	-.350
3	+.521**	-.464	+.031	-.360	+.190	-.483
4	+.292	+.394	+.252	+.117	+.154	+.033
5	+.083	-.031	+.033	+.345	-.098	+.236
6	-.062	+.418	-.100	+.350	+.083	+.217
7	+.396	+.478	-.083	+.069	+.064	-.190
8	+.402	+.065	+.150	-.500	-.100	-.384
9	+1.138**	+.321	+.369	.000	+.071	+.150
10	+.653	+.327	+.334	-.150	-.024	-.133
11	-.308	+.643*	-.417	-.121	+.519**	-.061
12	-.385	.000	-.219	+.327	+.361	+.455
13	+.833	-.143	-.250	+.126	+.272	+.273
14	+.077	+.071	-.326	-.333	-.272	+.545*
15	+.154	-.457	.000	.000	-.272	-.142

(Table continued on next page)

Table 1 (continued)

	Expectations			Positive Norms		
Item	P-G	S-O	S-T	P-G	S-O	S-T
16	.000	+.215	-.067	-.318	+.545	+.091
17	-.308	+.072	+.045	+.144	+.386	-.364
18	+.154	-.286	-.334	+.115	+.036	+.055
19	+.077	-.071	-.075	+.308	+.314	+.314
20	+.308	+.286	+.381	+.179	+.375	+.273
21	+.750	+.500	+.500	+.625	+.875	+.500
22	-.250	+.333	-.200	.000	-.075	-.200
23	+.131	+.500	-.114	+.125	+.125	.000
24	-.333	+.250	-.657	+.166	+.100	+.350
25	+.367	+.034	-.086	.000	+.050	-.150
26	-.333	-.500	+.600	+.475	+.300	+.275
27	+1.333**	+.583	+.114	+.275	-.175	+.114
28	+.250	-.250	+.343	+.425	+.250	+1.050
29	+1.167	+.417	-.267	+.800*	+.200	+.300
30	-.500	-.083	+.600	-.125	+.389	+.057

	Negative Norms		
Item	P-G	S-O	S-T
1	-.429	-.381	-.467
2	+.571	+.096	-.067
3	-.258	-.857	-.343
4	+.762	.000	+.400

(Table continued on next page)

Table 1 (continued)

Negative Norms

Item	P-G	S-O	S-T
5	-.131	-.131	-.150
6	+.598	-.052	-.127
7	-.327	-.692	-.524
8	.000	.000	+.666
9	+.238	+.047	+.200
10	-.262	.000	.000
11	-.225	+.386	-.100
12	+.218	+1.200*	+.609
13	+.448	+.691	+.182
14	+.417	+.327	+.291
15	+.121	+.318	-.345
16	+.718	+.255	-.273
17	-.129	+.682	-.355
18	.000	.000	-.489
19	+.475	+.873	+.364
20	+.115	-.055	-.091
21	+.571	+.571	+.571
22	-.057	-.057	-.057
23	-.057	+.143	+.143
24	+.286	+.057	+.571
25	-.457	-.229	-.457
26	+.914	-.222	-.133

(Table continued on next page)

Table 1 (continued)

Negative Norms

Item	F-G	S-O	S-F
27	+.571	.000	+1.333*
28	.000	.229	.000
29	+1.486	.229	+1.486
30	-1.667	-1.067	-1.867*

*, $p < .10$
**, $p < .05$
***, $p < .01$
****, $p < .001$

In regard to expectations attributed to people in general (hereafter, F-G) vs. own expectations, the Hi motive Ss had a significantly greater number of mean differences in their favor (again, see Table 1). That is, at least where F-G are concerned, the Hi people seemed to consistently suffer greater expectational role disparities. The ratio of mean differences was 21:29, yielding a $p < .05$.

The use of the sign test here was justified by running intercorrelations between a random sample of teacher behavior pairs. Since no significant correlations appeared it was felt that the items were sufficiently independent to use the sign test for mean differences. The results of sample correlations are printed in Appendix C. Again Kendall's Tau was the correlation procedure applied.

However, the sign test failed to bear out either prediction

1.b or 1.c. Examining the expectational disparities attributed to school officials (hereafter, S-O) it was found that 19 out of 29 mean differences favored the Hi motive people, but the test of the direction of the means was insignificant. Likewise, the expectational disparities involving school teachers (S-T) failed to support the prediction, i.e., in fact, the direction of mean differences slightly favored the Lo Ss.

Thus, in summary, it can be said that where expectational disparities are concerned, the relative extent of P-G vs. own disparities seems to distinguish between Hi and Lo Ss, whereas a similar analysis of S-O vs. own, or S-T vs. own expectations do not clearly distinguish the two motive groups.

Positive Norms. A somewhat similar pattern emerged from applying the sign test to the normative disparity mean differences (also, Table 1). Again, the P-G vs. own norm disparities appeared to be consistently greater among Hi Ss than among Lo (ratio equal 20:27, $p < .05$). Although the 27 individual s_{ij}'s did not show significance, the sign test provided evidence definitely consistent with prediction 1.d.

Furthermore, where positive norm disparities were involved, prediction 1.e was upheld, where 1.b had not been supported. That is, a significantly greater than chance number of positive mean differences (20:29, $p < .05$) involving normative disparities related to S-O was obtained. Of course, the actual increase of 1.e over 1.b was only one mean difference, so the pattern was essentially the same.

Again, the disparities associated with the S-T position did not distinguish between Hi and Lo groups, either in terms of the z_u's or with the application of the sign test to the mean differences. Some reasons for the contrariness of the S-T disparities will be examined in the "discussion" section.

Negative Norms. A special problem arose in connection with disparities involving negative norms. The negative norm distribution is characteristically bi-modal (Biddle, 1961b). Negative norm responses were usually expressed as scalar extremes. For every given item there were always two extremes, and in most cases the responses were split in some proportion between two extremes. This bi-modal distribution occurred on most of the behavior items included in Forms A, B, C.

Furthermore, the same bi-modal distribution occurred for negative norm disparities. That is, the own and attributed negative norms were either identical, or they were diametrically opposed. This yielded much higher mean disparity scores but did not affect the non-parametric analysis with the z_u. Still, the results were singularly inconclusive. Only one of the 87 z_u's turned up significant. This was item No. 12 ("Watching for cheaters during a classroom test") which has been typified as a "disciplinary" framework (see Willis, 1961). It is intriguing that the Hi change oriented individuals much more frequently disapproved of strong discipline (in this case) than do the Lo change oriented individuals, and consequently are more often "at odds" with alters on this issue.

It might be added that of the total of ten significant differences ($p < .10$) with the z_y's, four were on disciplinary frameworks while the others were on "social participation." The sum of this meagre finding seems to be that there are perhaps two areas where orientation for change may have a strong association with perceived role disparity: these are,

a) disciplining students, and

b) social interaction with fellow teachers in the school setting.

Indeed, this generalization was indicated at several other places in the results (see below).

It should be pointed out that, unlike the patterns established with expectational and positive norm disparities, the sign test failed to give any support for predictions 1.g to 1.i. The ratios were ca. .50 for all positions, P-C, S-T, and S-O.

Optimism. The analysis of the interaction of orientation for change with optimism was (as described above) more elaborate than that of the other role disparities. Table 2 illustrates the significant tests by motivational item and teacher behavior. In this table a slot is alloted for each comparison made; but only those cells that yielded significant differences are filled. A plus always indicates that the difference quoted is in the predicted direction. The actual number in the cell refers to the difference in the means.

Table 2.

Optimism and 'Orientation for Change'[4]

Behavior Items	Motive Items a	d	f	i	j	k	l	o	Assigned Score
1			-.395		+.496*				
2									
3									
4									
5					-.593*				
6							+.792**		
7		+.788*			+.542*	+1.009*	+.283		
8					-.461		+.473		
9	-.878*	-.375		-1.263*					
10									+.088
11									
12			-.698*		-.308				
13									
14	+.408						+.519*		
15					-.342*	-.468		-.750*	
16					-.691*	-.685*			
17							-.588*		
18									
19			-.801*		-.801*	-.742*			-.650*
20									

[4]Asterisks represent same p values as in Table 1.

The only single behavior item that appeared to follow the prediction was teacher behavior No. 7, which in four of the ten cases produced significant results in the "proper" direction. Behavior No. 7 is "policing the halls" and is, therefore, another disciplinary framework.

The significant differences were in the predicted direction for the Hi vs. Lo groups on each of the following motive items (see respective columns, Table 2):

item d: "Chance to help people; to do something worthwhile for society."

item j: "Having the support and recognition of my superiors."

item k: "Chance to study social problems."

However, the correctly predicted tests are concentrated on teacher behaviors No. 1, No. 6, No. 7, and No. 14; and no other frameworks generated positive findings.

On the contrary, a series of frameworks from Form B consistently split their disparities between Hi and Lo groups in direct contradiction to the predictions. In all, eleven of the thirteen significant results from Form B were negative findings, in the sense that they reversed the predictions derived from hypothesis No. 4.

Particularly striking is the fact that with three non-change oriented motives (No. 3, 5, and 6) the disparities involving teacher behavior No. 19 ("supervising on the playground") were significantly greater for Hi scorers (i.e., the non-change oriented people). Also in opposition to hypothesis No. 4 is the finding that motive items No. 3 and No. 6 had a strong tendency to predict contrary to the theory.

These two items:

No. 3 "job security, being able to keep my job as long as I want it,"

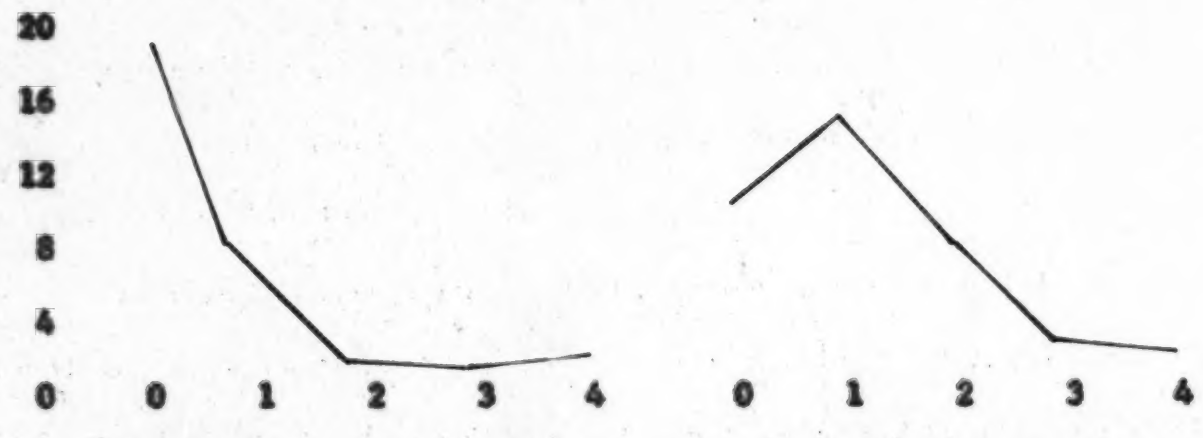
No. 6 "a good income; earning enough money to make a good living,"

seemed -- both on the basis of common sense and their correlations with other motive items -- to figure in a common factor which was called "neu-orientation for change." Yet they give strong indication (at least with several teacher behaviors on Form B) of being positively related to "tolerance" for lack of optimism.

Lastly, in regard to hypothesis No. 4 it was felt desirable to describe in greater detail the exact nature of the distribution of optimism. Optimism is a new terminological distinction within role theory and would seem to have broad applicability. But a great deal needs to be known about it as a cognitive phenomenon, per se. Although the first attempt to predict optimism from another variable (hypothesis No. 4) has not proven successful, still the data at hand can tell something about the basic structure of optimism.

The major observation on optimism yielded by the present data is that there were at least two basic types of optimism distributions among the 20 behavioral items examined above. These two variations of optimism have been named a) steep curve optimism, and b) shallow curve optimism. Examples of each of the two types of curves are presented in Figure 2. Each of these graphs is a frequency graph with the magnitude of disparity (i.e., zero to four scale points) mapped along the

horizontal axis and the number of disparities represented by the height of the curve. It should be remembered that a zero score indicates no disparity at all, while a score of four indicates diametrically opposed cognitions.



5. Keeping the pupils quiet in the Library

6. Speaking out at PTA Meetings

Fig. 2. Optimism Curves

Unfortunately, there is no readily apparent common denominator among the eight teacher behaviors generating shallow optimism curves. That is, there is no simple relationship among the contents of the behaviors generating low optimism. Methodologically, however, this distinction has some interest in the following sense. Those items that yielded shallow optimism (numbers 3, 6, 7, 8, 12, 13, 16, and 19) tended to be involved in most of the significant results. The point is that, in general, the distribution for optimism tends to

be quite skewed. The skewedness here, may have interfered with the appropriateness of a powerful test of significance. But even more important, the skewness itself seemed to reflect controversy associated with a particular framework. By its very nature a highly skewed optimism curve indicates little tension between the "ideal" and the "reality." Thus, if optimism is used as a variable in some general theoretical proposition, the interest being divorced from actual content, the choice of a framework known to have a shallow optimism curve would appear to enhance the chance of "significant" findings in support of the proposition.

Furthermore, the distinction between the two types of optimism curves may be an interesting way of describing empirical results when some specific content (e.g., the nature of academic freedom) is being investigated. For example, the relationship between the nature of the optimism distribution and, say, "positional satisfaction", or tendency to leave the position, may be valuable guide lines for research.

Expectations vs. Norms

More fruitful results accrued to hypothesis No. 2, concerning the relationship of role disparity to the basic type of cognition involved. Again negative findings were the result, but in this case the findings were so consistent that at least something definite can be stated.

It was originally proposed that greater role disparities would

be associated with norms than with expectations, regardless of other role factors such as the sentient object or object of the cognition, or even the behavior content. This, however, proved to be quite untrue. The results of the tests of this point are presented in Table 3. The item number is displayed along the vertical axis, while the respective alter positions involved are displayed along the horizontal axis. The figures in each cell refer to the direction of the mean differences; a plus figure indicates that the direction followed hypothesis No. 2. The important thing to note is how few plus differences appear. Again the asterisks indicate the significance level, if any, of the z_{ij} test.

Table 3.

Expectational Disparities vs. Norm Disparities (positive)

		2 vs. 6			3 vs. 7			4 vs. 8		
		Form A	Form B	Form C	Form A	Form B	Form C	Form A	Form B	Form C
	1	-	-	-	-	-	+	-	+	-
	2	-	-	-	-	+	-	+	+	-
Behavior	3	-	-	-	-	-	-	-	+	-
Items	4	-	-	* -	tie	-	+	-	-	+
(1-10)	5	-	-	** -	-	-	tie	-	-	-
(11-20)	6	** -	+	-	+	-	+	-	+	-
(21-30)	7	-	** -	-	** -	+	-	-	* -	tie
	8	-	-	-	+	-	* -	-	-	+
	9	* -	-	-	+	** -	+	-	-	-
	10	-	-	+	* -	-	-	* -	-	-

When the mean disparity for expectations attributed to P-C and the corresponding mean for norms (pages 1 vs. 2, and 5 vs. 6) were compared for each of the thirty independent content items, the difference favored expectations 28 out of 30 times. This indicates (using the sign test for mean differences, $p < .001$) that the disparities involving expectations are, here, greater than those involving norms.

Similarly, when the mean disparity associated with expectations attributed to S-T and the corresponding normative disparity were compared by item, a sign test again favored the expectations. In 21 out of 30 cases the mean disparity associated with expectations was higher than the mean of the disparities involving norms ($p < .05$).

Finally, this pattern of negative findings was repeated when the expectational disparities involving S-O were compared with their opposite number normative disparity. Here the ratio was 21:28, yielding a $p < .05$. A few individual teacher behaviors generated significant z_U's between norm and expectational distributions of disparities, all in contradiction to hypothesis No. 2. Three of these involved P-C vs. own cognitions (all at $p < .05$). They were:

No. 6 "Speaking out at PTA meetings",

No. 17 "Allowing pupils to explore during experiments in the laboratory", and

No. 23 "Choosing books for pupils in classrooms"

With own vs. S-T disparities the items yielding significance ($p < .05$)

were different:

No. 7 "Policing the halls" and

No. 19 "Supervising on the playground"

No significant z_U's occurred in comparing own vs. S-O disparities.

There is, though, no obvious meaning to this particular pattern of significance on individual behavior frameworks. One point of interest is that, again, behaviors No. 7 and No. 19 (disciplinary items) have produced significant outcomes: these seem to be particularly salient behavior frameworks within the area of the theory involved in this thesis.

It should be emphasized that, to the extent that disparities involving expectations do exceed those involving norms, the findings are in direct contradiction to hypothesis No. 2, and are also contradictory to hypotheses appearing elsewhere (Biddle, 1960 b, Vol. 5, p. 90). In both cases the hypotheses were based on the assumption that expectations are (in general) more closely tied to behavior (are based on past mappings of the individual, particularly past empirical mappings), while norms are evaluative mappings. In short, norms are assumed to be interpretive rather than operational in nature, thus less likely to be held consensually, and also less likely to be seen as consensual.

The reasons for the blatant reversal of hypothesis No. 2, and, therefore, the apparent invalidation of the above assumption are not immediately clear. At least two alternative explanations are

available, both involving correction of the interpretive vs. operational assumption. First, it is possible that expectations are not more consensually held than norms; that is, the greater expectational role disparities obtained in this study may simply represent veridical empirical. On the other hand, it may be possible that there is less consensus (in general, or just in regard to public school teachers) about norms, but that people do not admit, or do not recognize, normative disparities.

Disparity comparisons of other respondent groups, who were given the same questionnaire as the teachers, were equally ambiguous (Biddle, 1966b). In this latter study it was found that expectations attributed by "community" respondents (a non-specific group) differed significantly from own cognitions more frequently than did attributed norms differ from own norms. This is a result quite similar to the findings above. On the other hand, disparities generated by the pupil sample followed a converse pattern, i.e., the norms were more likely to yield significant disparities. The upshot of adding these two findings to the results of this thesis is to conclude that the tendency of different types of cognitions to reflect disparities as a part of a total role has multi-determiners and that there probably is no general pattern.

Functional Differences

Expectations. In comparing the distribution of expectational role disparities involving P-S with those involving S-T it is quite

clear that greater disparities exist between own vs. P-G cognitions, thus supporting hypothesis No. 3. Out of thirty teacher behavior frameworks one comparison of P-G associated disparities vs. S-T associated disparities was significant at the $p < .05$ level, five at the $p < .01$ level, four at the $p < .05$ level, and two more at the $p < .10$ level. This is, however, not a very astounding finding, since one would expect teacher respondents to attribute cognitions more similar to "own" to members of their own position than to such a vague, and "distant" position as "people in general." There was certainly no reason to believe at the beginning that this sample was made up solely of disaffected (or non-conformist) teachers.

Table 4 gives a list of the significant behavior items for each positional comparison; there were six types of comparisons in all.

Table 4

Positional Differences in Disparities

Expectations

P-G vs. S-T: 1^{***}, 4^{**}, 5^{*}, 6^{***}, 8^{***}, 9^{***}, 12^{**}, 17^{***}, 19^{**}, 21^{*}, 25^{****}, 26^{**} (Sign Test, $p < .001$)

P-G vs. S-O: 1^{*}, 4^{**}, 11^{**}, 12^{**}, 13^{**}, 17^{*}, 21^{*}, 25^{*} (Sign Test, $p < .01$)

S-O vs. S-T: 11^{***} (Sign Test, inconclusive)

Norms

P-G vs. S-T: 1^{**}, 3^{*}, 4^{*}, 7^{***}, 16^{***}, 19^{**} (Sign Test, $p < .001$)

P-G vs. S-O: 1^{*}, 4^{*} (Sign Test, $p < .01$)

S-O vs. S-T: ---- (Sign Test, inconclusive)

Only the significant items are enumerated after the symbol of each comparison. Again, the asterisks indicate the p value obtained.

Hypothesis No. 3 was further supported in that the disparities associated with P-O were also consistently greater than those associated with S-O. In this case three comparisons were significant at the $p < .01$ level and four more were significant at the $p < .05$ level. Furthermore, a sign test of the mean difference directions supported the hypothesis at the .05 level.

It had also been proposed that greater disparities would be associated with S-T than with S-O; but this prediction failed of verification. Only one of the 30 z_u's (behavior item No. 11) was significant ($p < .01$); all the other 29 z_u's were inconclusive. Likewise, the sign test was inconclusive.

Norms. An almost identical pattern appeared for positional comparisons where norms were involved as had occurred with expectational disparities. Greater disparities were generated by either S-O or S-T. A sign test indicated mean differences favored P-O associated disparities significantly more often ($p < .05$) than either S-T or S-O associated disparity means. Individually significant items are also listed in Table 4.

Again the prediction involving S-T associated disparity means vs. S-O associated disparity means was unsupported. In fact, the number of greater mean differences favored S-O, but the reversal was not significant, merely inconclusive.

The sum and substance of the findings comparing position

associated disparities is that teachers seem to see their own role cognitions more similar to their fellow position members than to P-C. In turn, S-O are seen as holding cognitions more similar to own role cognitions than are those attributed to members of that amorphous group referred to here as P-C. Quite similar degrees of disparity seem to be associated with S-O and S-Y.

Discussion

Technical Sources of Error

The possible sources of error in this thesis fit into two general categories: technical and theoretical. These will be treated in turn.

One technical error pervades the entire thesis and was not remediable within the methodological framework adopted at the beginning of the study, that is, to use the already collected data from the Kansas City school teachers. This error is the relative shortage of N for almost all statistical tests comparing Hi vs. Lo groups. The sign test indicated partial support for hypothesis No. 1 thus leading one to believe that the predicted differences were generated by individual teacher behaviors which were not themselves statistically significant due to low power of the statistic. The largest N available, here, was 26, while Form C items involved only 16 Ss.

A second serious technical source of error is the characteristic skewness of the disparity distribution, whether it involves optimism, or own vs. attributed cognitions. Using a non-parametric test, the

disruptive nature of a skewed distribution is lessened, but at the very least skewed ranks act to reduce the effective N (available for variation) and thus further lowers the power of whatever non-parametric statistic is applied. In this case skewness must have interacted with the already low N to yield a very low powered test of hypotheses.

A third technical source of error is not of statistical importance but nevertheless may have contributed to the failure of hypothesis No. 1. This is the lack of saliency for the hypothesis of the items chosen. This criticism is suggested because few of the teacher behavior items yielded large disparities. Integration was much more characteristic of these data than was disparity (although perfect integration, a la Parsonian theory, was not the case). It must be emphasized, however, that the integration, here, was perceived integration. Other data from the Kansas City role study (Biddle, 1961b) indicate considerable objective role conflict in the form of differences between cognitions of nine different respondent groups about teacher behavior.

In short, before concluding that the lack of "significant" findings is damaging to hypotheses No. 1 and No. 4 it must be considered that perhaps these items were not those about which the Gs were concerned. It should be particularly considered whether the Gs were likely to be concerned about any social disagreement over these items. Hindsight being forever superior to foresight, it is suggested at this time that the chances of broader success with hypothesis No. 1 would have been enhanced if some frameworks of greater social controversy had been included. Examples might include: teachers joining of a teachers'

union, political action by teachers, teaching methods, or teacher behavior vis a vis parents.

This shortcoming became particularly clear when the different types of curves for optimism were noticed. Throughout the analysis it was teacher behaviors concerned with only two areas that yielded most of the significant findings, although they were but half the total number of frameworks. These areas were a) disciplinary behavior, and, strangely enough, b) socialising with other teachers. Twenty-one out of 44 significant r_{ij}'s were generated by disciplinary frameworks alone.

Theoretical and Conceptual Problems

The findings of this thesis are ambiguous and difficult to assess in terms of theory. Hypothesis No. 1 received qualified support; hypothesis No. 4, although a corollary of hypothesis No. 1, generated very qualified support as well as a number of clearly negative findings. Hypothesis No. 2 also generated negative findings, but clearly laid the basis for a new hypothesis directly contradicting the one tested above. Hypothesis No. 3 was not advanced with a great deal of conviction, but was felt to be a useful heuristic tool: and proved to be so.

Perhaps the major theoretical weak spot in testing hypothesis No. 1 was the uncleanness of exactly what role disparity is, or "means," to a person. Of course, it was one of the latent functions of this thesis simply to get into the area of role disparity to find out if any very basic relationships would leap forward without elaborate social controls or lengthy field work. "Simple relations" were envisaged such

as might be generated by a laboratory perceptual study with only a handful of relatively unselected subjects.

However, the positive results are so scattered, yet so pervasive (note the success of the sign test in those situations where the frameworks did generate role disparities), that the tentative conclusion is that hypothesis No. 1 is correct, but that there are other factors radically affecting the relationship. Indeed, a whole matrix could probably be developed that would include many more variables, than mere "orientation for change" as affecting "perceived role disparities." And it is the contention of this thesis that these factors will be best conceptualized genotypically, as life styles or plans, of which "orientation for change" is only one example.

In the present study at least two uncontrolled factors may also have blocked significant findings. These are a) individual differences in exposure to actual evidence of role disparities and b) individual differences in the saliency of the items, particularly the saliency in regard to the importance of community consensus. It is possible that either of these factors might correlate with motive scores, and a future study in this area should attempt some control over them. It seems most likely that individual differences in saliency may be related to long range goals of teaching. For example, considerable emphasis on "good relations with supervisory personnel" may positively focus the respondent's attention on disciplinary frameworks. This respondent may be keenly aware of, or concerned with, the thoughts of others about discipline, whereas a person oriented toward "helping the bright student"

may be comparatively uninterested in community consensus about disciplinary behavior. In a future study the sample might be more carefully selected (matched) for these perceptual "sets."

The meaning of the motive items seems less ambiguous than the meaning of the behavior frameworks, but there are some specific questions to be raised. It was assumed that when an individual noted as "important" a certain aspect of teaching that the response indicated a general personality orientation. For example, a person who rated "good income, etc." as not too important was considered not to value money too highly, particularly in relation to some of the alternatives posed, "helping students," and others. However, something quite contrary may be the case in some instances. It is possible that the relevant goal (e.g., money in the case of the example above) was not available in teaching. Therefore, a low response to the income motive item may actually indicate recognition that this goal is relatively unrealistic for the public school teacher, not necessarily that it is not valued by the S. Examination of the individual questionnaires led to the conclusion that this was definitely the case for a few Ss.

Furthermore, some of the motive items generated consistently positive or negative responses. For example, the item "chance to work with students who are more intelligent and more motivated than usual" was given a high response only 17 times out of the total 54 Ss who were used for the optimism tests. Thus indicating that, relatively speaking, helping bright students is not a strongly cathected goal of Kansas City public school teachers.

Conclusions

The major purpose of this thesis was the investigation of the "relation between two classes of cognitive phenomena," namely, "motivational structure" and "tolerance" for perceived role disparities. The specific thesis fell far short of definite establishment. However, some of the results were encouraging, indicating that perhaps "orientation (or motivation) for change" is positively related to "tolerance" for role disparities (hypothesis No. 1): even though the universality of this proposition was contraindicated at many spots. That is, its validity seems relative to subject matter in a manner inexplicable on the basis of the data used here.

What was really disappointing was the failure of hypothesis No. 4 to generate any positive findings. Hypothesis No. 4 was made as a corollary to hypothesis No. 1 on the assumption that lack of optimism is dynamically similar to perceived lack of consensus for one's own position. The empirical contradiction indicates that hypothesis No. 4 may be wrong, specifically, that it is poorly derived. That is, perhaps the dynamics of optimism are much different than those involved in own vs. alter perceived disparity.

The difference between Hi and Lo groups on optimism was premised on the assumption that lack of optimism, especially about one's own position, could be tension producing to a non-change oriented S, in a way similar to perceived role conflict. Because hypothesis No. 1 (predicting to perceived role disparities) was given some support, while hypothesis No. 4 generated many negative findings, it seems quite

possible that the assumption of their dynamic similarity is false. Even the sign test for mean differences using the amalgamated operationalization of "orientation for change" (see last column Figure 3) failed to support the hypothesis, as it did support hypothesis No. 1. In short, hypothesis No. 4 does not appear to be a useful proposition for future research. In fact, the best induction from these data is that optimism is positively related to "orientation for change."

The findings generated by hypotheses No. 2 and No. 3 are adequately discussed in the results section, and do not need further attention here. The major results can be summarized as follows:

1. Greater perceived disparities accrued to expectations than to positive norms; this relationship was consistent across all three alter positions and for a variety of teacher behaviors.
2. Relative to S-O and S-T, the perceived role disparities associated with the more abstract sentient object[5] position, "people in general," tended to be large.

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[5]Biddle (1961a) has defined a "sentient object" as "A person for whose cognition a second order cognition is presumed to be held." S-O is, of course, a set of persons (school officials) fulfilling this description in the analytic system of this thesis.

Summary

This thesis attempted to study the relation between amount of perceived role disparity and a motivational construct, called "orientation for change." The particular type of disparity was disparity between own and attributed cognitions held by members of a position (public school teachers) for behaviors of their own position. Secondarily, certain structural characteristics of this type of disparity were also investigated.

The *Js* were public school teachers in the Kansas City area, and the three groups to which the *Js* were attributing cognitions were a) "people in general," b) school officials, and c) other school teachers. The operationalization of "change orientation" was the *Js'* relative locations on a bi-polar factor appearing out of rated list of "important" aspects of teaching. This list appeared to indicate "reasons" why the *J* was a teacher.

Weak support was obtained for the major hypothesis that "orientation for change" is positively related to extent of perceived role disparity. However, negative findings resulted from a corollary of this major hypothesis: this corollary, similarly, related the *Js'* "optimism" to the extent of perceived role disparity.

Finally, the structural characteristics of this type of disparity appear to include:

1. greater disparity accruing to expectations (belief statements) than accrued to positive norms, and

2. greater disparities associated with a generalised position, e.g., "people in general", than were associated with positions with which the Ss is specifically familiar.

APPENDICES

Appendix A

Schedules of Behavior Frameworks

The following three lists of behaviors and the respective alternatives for response are the three general schedules used in this thesis. Each list was given to each subject eight different times for responses from eight different points of view. The eight different points of view are enumerated in the "Methodology and Data Analysis" section of the thesis.

Form A

1. Watching pupils during study period
   During a public school study period most teachers would do:

A great deal of watching pupils	5
A lot of watching pupils	4
A moderate amount of watching pupils	3
A slight amount of watching pupils	2
Little or no watching pupils	1

2. Supervising pupils in a classroom test
   In a public school classroom during a test most teachers would do:

A great deal of supervising pupils	5
A lot of supervising pupils	4
A moderate amount of supervising pupils	3
A slight amount of supervising pupils	2
Little or no supervising pupils	1

3. Singing during a classroom singing period
   In a public school classroom during a singing period most teachers would do:

A great deal of singing with pupils	5
A lot of singing with pupils	4
A moderate amount of singing with pupils	3
A slight amount of singing with pupils	2
Little or no singing with pupils	1

4. Ignoring pupils misbehaving in a classroom
In a public school classroom while pupils are misbehaving most teachers would do:

A great deal of ignoring pupil misbehavior	5
A lot of ignoring pupil misbehavior	4
A moderate amount of ignoring pupil mis...	3
A slight amount of ignoring pupil mis...	2
Little or no ignoring pupil misbehavior	1

5. Keeping pupils quiet in the library
In a public school library most teachers would do:

A great deal of keeping pupils quiet	5
A lot of keeping pupils quiet	4
A moderate amount of keeping pupils quiet	3
A slight amount of keeping pupils quiet	2
Little or no keeping pupils quiet	1

6. Speaking out at PTA Meeting in the auditorium
In a public school auditorium during a PTA Meeting most teachers would do:

A great deal of speaking out	5
A lot of speaking out	4
A moderate amount of speaking out	3
A slight amount of speaking out	2
Little or no speaking out	1

7. Policing the halls
In the public school halls most teachers would do:

A great deal of policing	5
A lot of policing	4
A moderate amount of policing	3
A slight amount of policing	2
Little or no policing	1

8. Disciplining pupils during basketball game in gym
In the public school gym during a basketball game most teachers would do:

A great deal of disciplining pupils	5
A lot of disciplining pupils	4
A moderate amount of disciplining pupils	3
A slight amount of disciplining pupils	2
Little or no disciplining pupils	1

9. Visiting with other teachers on playground
On a public school playground most teachers would do:

A great deal of visiting with teachers	5
A lot of visiting with teachers	4
A moderate amount of visiting with teachers	3
A slight amount of visiting with teachers	2
Little or no visiting with teachers	1

10. Cooperating with other teachers in school
In a public school most teachers would do:

A great deal of cooperating with teachers	5
A lot of cooperating with teachers	4
A moderate amount of cooperating with...	3
A slight amount of cooperating with teachers	2
Little or no cooperating with teachers	1

Form B

11. Visiting with other teachers during study period
During a public school study period most teachers would do:

A great deal of visiting with other teachers	5
A lot of visiting with other teachers	4
A moderate amount of visiting with other...	3
A slight amount of visiting with other...	2
Little or no visiting with other teachers	1

12. Watching for cheaters during a classroom test
In a public school classroom during a test most teachers would do:

A great deal of watching for cheaters	5
A lot of watching for cheaters	4
A moderate amount of watching for cheaters	3
A slight amount of watching for cheaters	2
Little or no watching for cheaters	1

13. Having pupils sing solos during a classroom singing period
In a public school classroom during a singing period most teachers would do:

A great deal of singing of solos by pupils	5
A lot of singing of solos by pupils	4
A moderate amount of singing of solos by...	3
A slight amount of singing of solos by...	2
Little or no singing of solos by pupils	1

14. Telling misbehaving pupils in the classroom to stop talking
In a public school classroom while pupils are misbehaving most teachers would do:

A great deal of telling to stop talking	5
A lot of telling to stop talking	4
A moderate amount of telling to stop talking	3
A slight amount of telling to stop talking	2
Little or no telling to stop talking	1

15. Doing own studying and grading in the library
In the public school library most teachers would do:

A great deal of studying and grading	5
A lot of studying and grading	4
A moderate amount of studying and grading	3
A slight amount of studying and grading	2
Little or no studying and grading	1

16. Attending PTA meeting in the auditorium
In the public school auditorium most teachers would do:

A great deal of attending PTA meetings	5
A lot of attending PTA meetings	4
A moderate amount of attending PTA meetings	3
A slight amount of attending PTA meetings	2
Little or no attending PTA meetings	1

17. Allowing pupils to explore during experiments in the laboratory
In a public school laboratory during experiments most teachers would do:

A great deal of allowing to explore in ex...	5
A lot of allowing to explore in experiments	4
A moderate amount of allowing to explore...	3
A slight amount of allowing to explore...	2
Little or no allowing to explore in experi...	1

18. Kibitzing during basketball game in gym
In the public school gym during a basketball game most teachers would do:

A great deal of kibitzing during game	5
A lot of kibitzing during game	4
A moderate amount of kibitzing during game	3
A slight amount of kibitzing during game	2
Little or no kibitzing during game	1

19. Supervising on playground
On a public school playground most teachers would do:

A great deal of supervising on playground	5
A lot of supervising on playground	4
A moderate amount of supervising on...	3
A slight amount of supervising on playground	2
Little or no supervising on playground	1

20. Cooperating with the principal in school
In a public school most teachers would do:

A great deal of cooperating with principal	5
A lot of cooperating with principal	4
A moderate amount of cooperating with...	3
A slight amount of cooperating with...	2
Little or no cooperating with principal	1

Form C

21. Reading own books during study period
During a public school study period most teachers would do:

A great deal of reading own books	5
A lot of reading own books	4
A moderate amount of reading own books	3
A slight amount of reading own books	2
Little or no reading own books	1

22. Leaving the room during a classroom test
In a public school classroom during a test most teachers would do:

A great deal of leaving the classroom...	5
A lot of leaving the classroom during a test	4
A moderate amount of leaving the classroom...	3
A slight amount of leaving the classroom...	2
Little or no leaving the classroom during...	1

23. Grading papers during a classroom singing period
In a public school classroom during a singing period most teachers would do:

A great deal of grading papers	5
A lot of grading papers	4
A moderate amount of grading papers	3
A slight amount of grading papers	2
Little or no grading papers	1

24. Threatening pupils misbehaving in the classroom
In a public school classroom while pupils are misbehaving most teachers would do:

A great deal of threatening the pupils	5
A lot of threatening the pupils	4
A moderate amount of threatening the pupils	3
A slight amount of threatening the pupils	2
Little or no threatening the pupils	1

25. Choosing books for pupils in the classroom
In the public school library most teachers would do:

A great deal of choosing books for pupils	5
A lot of choosing books for pupils	4
A moderate amount of choosing books for...	3
A slight amount of choosing books for...	2
Little or no choosing books for pupils	1

26. Visiting with parents during PTA meetings in the auditorium
In the public school auditorium during a PTA meeting most teachers would do:

A great deal of visiting with parents	5
A lot of visiting with parents	4
A moderate amount of visiting with parents	3
A slight amount of visiting with parents	2
Little or no visiting with parents	1

27. Being partisan during football game on athletic field
On the public school athletic field during a football game most teachers would do:

A great deal of being partisan during game	5
A lot of being partisan during game	4
A moderate amount of being partisan during...	3
A slight amount of being partisan during...	2
Little or no being partisan during game	1

28. Doing menial tasks during basketball game in gym
In the public school gym during a basketball game most teachers would do:

A great deal of menial tasks during game	5
A lot of menial tasks during game	4
A moderate amount of menial tasks during...	3
A slight amount of menial tasks during game	2
Little or no menial tasks during game	1

29. Disciplining pupils in the cafeteria
In the public school cafeteria most teachers would do:

A great deal of disciplining pupils	5
A lot of disciplining pupils	4
A moderate amount of disciplining pupils	3
A slight amount of disciplining pupils	2
Little or no disciplining pupils	1

30. Participating in community activities out of school
While not on the job most teachers would do:

A great deal of participating in activities	5
A lot of participating in activities	4
A moderate amount of participating in...	3
A slight amount of participating in...	2
Little or no participating in activities	1

Appendix B

Schedule of Teacher 'Motives'

Thinking about the present, please check off each of the items according to how important it is to you in a job now.

	How important is this to you in a job now?			
	Necessary (1)	Very important (2)	Fairly important (3)	Not too important (4)
a. Chance to work with students who are more intelligent and more motivated than usual	[ ]	[ ]	[ ]	[ ]
b. Chance to rise to a high position in the system I work in	[ ]	[ ]	[ ]	[ ]
c. Chance to work with a teaching staff that is highly competent	[ ]	[ ]	[ ]	[ ]
d. Chance to help people; to do something worthwhile for society	[ ]	[ ]	[ ]	[ ]
e. Prestige in the community; having a job that people look up to	[ ]	[ ]	[ ]	[ ]
f. Job security; being able to keep my job as long as I want it	[ ]	[ ]	[ ]	[ ]
g. Having a job that has prestige in the teaching profession	[ ]	[ ]	[ ]	[ ]
h. Chance to work in a system with a curriculum that I agree with	[ ]	[ ]	[ ]	[ ]
i. Adequate free time; having time off for other things that interest me - my family, friends, hobbies, etc.	[ ]	[ ]	[ ]	[ ]
j. Having the support and recognition of my superiors	[ ]	[ ]	[ ]	[ ]
k. Good income; earning enough money to make a good living	[ ]	[ ]	[ ]	[ ]

	How important is this to you in a job now?			
	Necessary (1)	Very important (2)	Fairly important (3)	Not too important (4)
l. Autonomy in my work; having enough freedom and responsibility to do my job the way it should be done	[ ]	[ ]	[ ]	[ ]
m. Chance to study social problems and how to bring about a better society	[ ]	[ ]	[ ]	[ ]
n. Doing work my colleagues respect	[ ]	[ ]	[ ]	[ ]
o. Chance to work with new ideas in my subject matter field	[ ]	[ ]	[ ]	[ ]

Appendix C

A Random Selection of Interitem Correlations for Own Cognitions[6]

Form A

	1	2	3	4	5	6	7	8	9	10
1	X			.04[a]		.13[a]		-.11		
2		X					.05[a]		.11[a]	-.04
3			X	-.02			-.05[a]	.18[a]		
4				X		.01				
5					X					
6						X		.08	.18[a] .00	
7							X			-.08
8								X -.09		
9									X	
10										X

(Appendix C to be continued)

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[6] The small a indicates that the items involved were "own" norms (page 5), so small a indicates that the items were own expectations (page 1). Fifteen sample items were selected for each Form; the type of cognition and specific item numbers were selected randomly.

Form B

	11	12	13	14	15	16	17	18	19	20
11	X	.22[a]			-.02	.01			.05	
12		X			-.10	-.04		.03[a]		
13			X				.08			
14				X				.14[a]		.07[a]
15					X		-.03		.13	
16						X				.08
17							X		-.12	
18								X		-.12
19									X	
20										X

Form C

	21	22	23	24	25	26	27	28	29	30
21	X				-.62[a]			.11	.13[a]	
22		X	.00[a]				.08[a]			-.09[a]
23			X	.17			-.03	.27		
24				X						.16[a]
25					X		.04[a] -.06		-.05	
26						X				
27							X			.02[a]
28								X		
29									X	.14
30										X

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